# CENTURYLINK™ TEACHER AND TECHNOLOGY PROGRAM
# COMPETITIVE SUB-GRANT PROPOSAL ASSURANCE SHEET

Project Title: G.T. Choose Your Own Adventure Amount of Request: $ 4,872.86

Name of Certificated Teacher (or "lead teacher" if more than one): Miriam Brown

Name of School currently teaching at: Jerome Middle School

District Name: Jerome School District District Number: 261

Total number of teachers involved (if more than one): 4

Approximate number of students impacted: 25 per year Grade level(s) impacted: 6, 7, 8

Content area(s) impacted: English Language Arts, S.T.E.M., Art

**I certify that if I receive a CenturyLink™ Teacher and Technology Program Grant –**

- **I agree to create a 5-minute video highlighting my project for the purposes of sharing best practices with other Idaho K-12 teachers.**
- **I agree to do one presentation on my project to other Idaho K-12 teachers before December 31, 2014 (by 5 pm MST).**
- **I agree to submit an electronic report to the Idaho State Department of Education on or before December 31, 2014.**

| | E-MAIL | TELEPHONE |
|---|---|---|
| SUPERINTENDENT NAME (PRINT): Dale Layne | dale.layne@jeromeschools.org | (208) 324-3392 ext. 1020 |
| SIGNATURE: Dale Layne | | |
| PRINCIPAL NAME (PRINT): Ryan Ellsworth | ryan.ellsworth@jeromeschools.org | (208) 324-8134 ext. 3003 |
| SIGNATURE: Ryan Ellsworth | | |
| TEACHER LEAD TEACHER NAME (PRINT): Miriam Brown | Miriam.Brown@jeromeschools.org | (208) 324-8134 ext. 3212 |
| SIGNATURE: Miriam Brown | | |
| TECHNOLOGY DIRECTOR (PRINT): Chris Gibson | chris.gibson@jeromeschools.org | (208) 644-2858 |
| SIGNATURE: Chris Gibson | | |

**Submit one digital copy of your proposal (PDF format) by January 10, 2014 (by 5 pm MST) via e-mail to:**
Todd Lawrence
tlawrence@sde.idaho.gov
208.332.6959

**Proposals submitted after that date and time will not be considered.**

***Only one PDF file per teacher applicant will be accepted (this includes the assurance sheet).**
Faxes will not be accepted.

**CenturyLink Teachers and Technology Program**
**Applicant certification**

As an applicant for a CenturyLink Teachers and Technology grant, you are required to certify the following statements. Please ensure that you work with the necessary individuals within your school or district to ensure that the following statements are accurate.

1. After reasonable investigation (such as conferring with the school's network administrator), the applicant does not anticipate that the proposal, if selected for award, would significantly increase the school's network capacity needs.

Miriam Brown
Signature of applicant

Ryan Ellsworth
Signature of principal

1/13/2014
Date

1/13/2014
Date

2. The applicant is not involved in any procurement decisions regarding the purchase of the school's telecommunications and internet services, including its participation, if any, in the E-Rate program.

Miriam Brown
Signature of applicant

Ryan Ellsworth
Signature of principal

1/13/2014
Date

1/13/2014
Date

3. The applicant confirms that receiving this grant will have no impact on and will not be considered in E-rate procurement decisions for their school or school district.

Miriam Brown
Signature of applicant

Ryan Ellsworth
Signature of principal

1/13/2014
Date

1/13/2014
Date

Applicant's Name (please print): Miriam Brown

City and State: Jerome, ID 83338

School Name: Jerome Middle School

School District: Jerome School District

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# Gifted and Talented Choose Your Own Adventure Class

**Goal:** To buy a mobile laptop lab of 13 computers and a charging cart so that each gifted and talented student will have access to a computer to do research and publish an innovative project of their choice.

## Current Innovation

This year Jerome Middle School decided to implement a projects class for Gifted and Talented (GT) students in order to challenge them and improve their academic performance. The *GT Choose Your Own Adventure Class* is innovative in its structure as well as its emphasis on 21st century technology. The course is designed to promote independent learning with a focus on skills that will prepare them for college and their future career. The Idaho Common Core Standards for English Language Arts state that students who are college and career ready should demonstrate independence. It says they must ñbecome self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference material.ò In most courses students are told what they must learn and how they should learn it by the instructor. This tends to discourage the development of independent learning skills. In contrast, the *Choose Your Own Adventure* course allows students to choose both their topic and their method of learning. For example, this year several students chose to learn how to make their own computer games. They did research to find out how it was done and then they found mentors who worked with computers to advise them. They realized that in order to make a computer game they needed to learn a programming language, and that Java and JavaScript were the most common. After doing more research they discovered that Khan Academy has an excellent interactive course in computer programming that teaches them JavaScript for free. They are now learning to code with Khan and they are one step closer to their goal of making a computer game. Each student goes through a similar process as they learn what it takes to turn a dream into a reality. This can be difficult and frustrating at first, but it teaches them that as long as you have the motivation and the necessary resources at your disposal you can learn anything. The course will help them to become self-directed learners and prepare them for college.

Independence is an important skill, but students also need to learn how to collaborate. In our course the students are taught networking and interview skills, then they use these skills to find an outside mentor who has expertise in their field of interest. For example, one student decided to learn about genetic engineering. This student did not know of anyone with any experience in this field, but another student mentioned that he lived next door to a man who genetically engineered cattle for a living. The genetic engineering student contacted this person, who agreed to come to class and be interviewed about his career. After the interview he agreed to mentor the student and help him make embryos for his project using his laboratory and equipment. All of the students have had similar success finding mentors who can help them achieve their goals. We have a mentor from Pixar advising our animation students and a mentor who works for Adobe communicating with the programming students. This collaboration with outside mentors is valuable in terms of the knowledge that they gain, but it also allows the students to practice interpersonal communication skills that will help them in their future careers.

In addition to the community resources, our class relies heavily on technology in order to allow the students to pursue their individual interests. Computers can be used to learn about any topic, not just the ones that are computer related. However, with each student pursuing knowledge in different formats and at different rates it is important for the class to be flexible, while still requiring the students to be accountable for their learning. Technology makes this possible because all of the course materials and assessments are organized in Moodle, a program that allows teachers to create online courses. The Moodle content is available to students through the schoolôs website. The students can access the material at any time and they can move through it at their own pace. This allows the teacher to work one on one with students during class to create a personalized learning environment. For example, when students were taught how to evaluate online sources, some understood the concept with the materials from Moodle and were able to start collecting valid information immediately. Others required more guided practice with the teacher before they learned how to determine if a website was credible or not. In addition to Moodle and the internet, students are using the computers to experiment with different software programs such as Pencil 2D, Pivot Animotor, Maya 3D and Bootstrap Math. At the end of the year they will culminate their project by using technology to present their work to friends and family using Power Point, Prezi or Animoto. In short, this class is innovative because it allows student themselves to innovate using a variety of technological tools and community resources.

## Project Narrative

Idaho Common Core Standards and 21st century learning skills are emphasized in the *Gifted and Talented Choose Your Own Adventure Class* as students use innovation, communication, and creativity to complete individualized projects. This year, over half of the students chose projects that are computer based. Unfortunately, the four computers in our classroom have proven to be inadequate. Six of the students have chosen to create digitally animated short films or learn how write computer code and they need the computers on a daily basis. However, others who have chosen projects that are not technology based, also need access to the computers. For example, one student is creating an international cookbook. She needs the computer to do research on geography and international cuisine as well as to produce and publish her cookbook. Another student is interested in journalism so she is publishing a GT Newsletter using a Google Website. She also needs to use the computer to do her work. It has become evident that every student in the class needs a computer almost every day to complete their project.

At the beginning of the year, many of our lessons took place in the schoolõs computer labs in order to accommodate all of the studentõs needs. This soon became problematic when other teachers needed the labs to fulfill their curriculum requirements. The schoolõs mobile netbook labs are often scheduled by other teachers as well. Fortunately, a couple of parents and relatives have lent laptops so that the students can continue their projects. Using the classroom computers, the teacher computer, the borrowed laptops and our class iPad, we have been able to rotate the students so that they have access to technology every other day. It would be twice as effective if each student could have a computer every day.

Students improve their research and writing skills by using the computers often. The Core Standards for sixth graders states that they should ñdemonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.ò Keyboarding skills require time and practice. Daily use of the computers will afford this practice. Some students will go beyond basic keyboarding and research skills to learn in depth technology skills such as computer programming. The coding skills they learn in this class will give them an advantage as they pursue careers in computer programming and design. A mobile laptop lab would double the amount of work that the students could accomplish because they would not have to share a computer.

As a culminating evening event, each student will be required to present what they have learned to their family and friends. During class they will compare traditional presentation methods such as poster boards and PowerPoint Slides to newer presentation platforms such as Prezi and Animoto. They will choose the presentation method that will best allow them to teach their peers about their topic and present it in a visually dynamic way. This will enhance their public speaking abilities and give them more technological tools to aid them in their future careers. Although the tools the students are learning about today will probably be outdated in fifteen years, the concepts that they are learning will not. Experimenting with a diverse array of technological tools will give students experience stepping out of their comfort zones. This will make them more likely to be able to embrace the technology that will be available to them in the future.

## Team Members

**Miriam Brown** is the GT teacher at Jerome Middle School. Before gaining to her teaching certificate she held a degree in psychology and has many years of experience motivating individuals to accomplish their personal goals.

**Daniel Blackburn** was a former GT student in the Jerome School District. Daniel taught himself how to program when he was in seventh grade and his is currently the Technology Specialist at Jerome Middle School. Daniel not only provides technical support, he is an invaluable mentor for the students who are learning to program.

**Ryan Ellsworth** is the principal at Jerome Middle School. He was responsible for initiating the project class by providing a classroom and a time slot. He has worked with GT students in the past on special projects and he has been instrumental in making sure that we have the resources we need to allow our students to pursue their projects.

**Chris Gibson** is the District Technology Director. He makes sure that our computers are updated and are able to run the necessary software for the student projects. He oversees all of the computer resources and he is progressively seeking to move our district forward with technology.

## Feasibility/Sustainability

The Jerome School District is committed to making technology available for students and teachers. They have installed wireless access for students and teachers in all of the schools. The Technology Department will be involved in purchasing the laptop computers and has expressed support for the project class. Daniel Blackburn in the Technology Department at Jerome Middle School has agreed to help set up and maintain the computers. Although the *Choose Your Own Adventure Class* is already in place and will continue regardless of the award, a laptop lab would make it more effective.

## School/District Support

The Jerome School District has been very supportive of the GT projects class at the Middle School. The Principal, Ryan Ellsworth, has dedicated the time and resources to allow the students to meet on a daily basis. The district immediately upgraded the classroom computers to make them capable of running the animation software we needed as soon as they learned that the old computers were inadequate. The administration has been extremely supportive of what we are trying to accomplish and they have expressed that they will continue to support us in the future.

## Anticipated Outcomes/Impact

In the course of researching, completing, and publishing their projects students will meet the following Idaho Common Core Standards:

**College and Career Readiness Anchor Standards for Reading**

1. Read closely to determine what the text says explicitly and to make logical inferences from it: cite specific textual evidence when writing or speaking to support conclusions from the text.
7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

**College and Career Readiness Anchor Standards for Writing**

2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through effective selection, organization and analysis of content.
6. Use technology, including the internet, to produce and publish writing and to interact and collaborate with others.
7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection or research.

**College and Career Readiness Anchor Standards for Speaking and Listening**

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

## Project Scope and Sequence

**July-August: Laptop Lab Purchase and Preparation**

- Team members purchase the laptops and load them with the necessary software

**August: Parent Orientation:**

- Team Members meet with parents to help them understand the program and the use of technology in the classroom.

**September: Introduction and Brainstorming Unit:** Students will be introduced to Moodle and taught how to log in and submit assignments. They will be given a list of scholarship competitions and former student projects to explore. They will brainstorm a list of 50 project ideas and then narrow it down to the most suitable project.

- **Team Members will meet to evaluate and approve the project ideas**.

**October: Background Research**: Students will be taught how to use the school and community library, the Lili online library and internet search engines to find credible sources of information for their project. They will organize the research into a paper and properly cite sources using MLA format.

- **Miriam Brown will evaluate the papers**.

**November: Mentor Unit/ Project Planning:** Students will be taught how to network to find an expert in their field of interest. They will interview their mentors and establish a schedule and method for ongoing communication. Students will break their large project into smaller stages and submit a detailed plan for accomplishing each stage of the project with specific tasks and deadlines.

- **Team members meet to evaluate and approve the student's project plans and mentors.**

**December- April: Project Completion:** Students work on accomplishing their goals. They will have weekly interviews with the teacher to evaluate their progress.

- **Team members meet monthly to evaluate student progress and ensure that the technology is being used appropriately.**

**May: Prepare a Presentation:** Students compare and contrast the following visual presentation methods: Poster boards, PowerPoint, Prezi, and Animoto. They will prepare a five minute oral presentation about their project with appropriate visual aids and present the project to friends and family at an evening event.

- **Team members will meet after the event to assess the effectiveness of the program and discuss ways to improve it.**

## Budget Narrative/Spreadsheet

The money awarded by this grant will be spent on purchasing a mobile laptop lab to supplement the classroom computers. The laptops will make it possible for each student to have access to a computer every day so that they can research and complete their projects. The most important purchase will be the computers. Daniel Blackburn has been able to find refurbished laptops that will be suitable for our purposes at a discounted price of $299.99. We would like to buy 13 laptops. We will also need a charging cart in order to store the laptops and charge them when they are not in use. The school already has the licenses for the office software that we will load on the computers. Any additional software costs will be taken care of by the GT Program. The total cost of the laptop lab will be $4,872.86.

| Materials | Quantity | Price Per Item | Total |
|---|---|---|---|
| Laptop Computers | 13 | $299.99 | $3899.87 |
| Charging Cart | 1 | $799.99 | $799.99 |
| Shipping and Taxes | | $173.00 | $173.00 |
| | | **Grand Total** | **$4,872.86** |